Assessment and Treatment of Concurrent Posttraumatic Stress Disorder and Substance Abuse

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The trauma survivor is often a consumer of alcohol and other drugs, and understanding the frequently observed concurrence of substance abuse and posttraumatic stress disorder (PTSD) has important implications for clinical practice. Ongoing substance abuse limits trauma survivors' abilities to activate adaptive coping repertoires, mobilize social support, and engage in trauma-focused treatments. Substance-abusing individuals are also particularly vulnerable to experiencing victimization and other traumatic events while intoxicated. Moreover, posttraumatic symptomatology may be associated with poorer substance-abuse treatment outcomes and earlier relapse. In this chapter, we summarize the empirical literature on the interactions between trauma exposure, PTSD, and substance-abuse problems. Aspects of a model for understanding the relationship between these psychological phenomena are reviewed. Finally, we propose a set of clinical guidelines for the assessment and treatment of individuals with concurrent PTSD and substance abuse. Case material from our clinical work with two clients is provided to illustrate several of these guidelines.

TRAUMA EXPOSURE, PTSD, AND SUBSTANCE ABUSE

There is a growing body of empirical literature investigating the link between exposure to traumatic events and substance-abuse problems (for reviews, see Kofoed, Friedman, & Peck, 1993; Brown & Wolfe, 1994; Polusny & Follette, 1995;

Stewart, 1996). Researchers have found that development of alcohol and other drug problems is associated with childhood sexual abuse (CSA; Briere & Runtz, 1987; Burnam et al., 1988; Miller, Downs, & Testa, 1993; Boyd, 1993; Wilsnack, Vogeltanz, Klassen, & Harris, 1997) and physical abuse (e.g., Widom, 1993). Higher rates of substance-abuse problems have been reported among battered women compared to women from the general population (Kantor & Straus, 1989; Miller & Downs, 1993), and studies investigating survivors of disasters suggest a link between exposure and substance abuse (Gleser, Green, & Winget, 1981; Adams & Adams, 1984; Green, Grace, & Gleser, 1985). Findings from the literature on combat have been inconsistent; a correlation between combat exposure and increased levels of substance use has been reported in many studies (e.g., Branchey, Davis, & Lieber, 1984; Yager, Laufer, & Gallops, 1984; Green, Grace, Lindy, Gleser, & Leonard, 1990; Kulka et al., 1990; Cottler, Compton, Mager, Spitznagel, & Janca, 1992; Reifman & Windle, 1996), but there have also been many results unsupportive of such a relationship (e.g., Laufer, Yager, Frey-Wouters, & Donnellan, 1981; Helzer, 1984; Centers for Disease Control, 1988; Kulka et al., 1990; Boscarino, 1995).

A great deal of research has also investigated the comorbidity of PTSD and substance abuse (Brown & Wolfe, 1994; Najavits, Weiss, & Shaw, 1997; Stewart, 1996). Among male veterans seeking treatment for combat-related PTSD, high rates of lifetime alcohol disorders (ranging from 47% to 77%) and lifetime drug abuse/dependence (from 25% to 54%) have been documented (e.g., Escobar et al., 1983; Sierles, Chen, McFarland, & Taylor, 1983; Davidson, Swartz, Storck, Krishman, & Hammett, 1985; Sieries, Chen, Messing, Besyner, & Taylor, 1986; Keane, Gerardi, Lyons, & Wolfe, 1988; Davidson, Kudler, Saunders, & Smith, 1990; Keane & Wolfe, 1990; Roszell, McFall, & Malas, 1991; Fontana, Rosenheck, Spencer, & Gray, 1995). Similarly, an extensive literature has documented high rates of PTSD among male veterans seeking substance-abuse treatment (e.g., Hyer, Leach, Boudewyns, & Davis, 1991; McFall, Mackay, & Donovan, 1991; Triffleman, Marmar, Delucchi, & Ronfeldt, 1995). For example, Triffleman et al. (1995) found that 40% of substance-abusing inpatient veterans had a lifetime history of combat-related PTSD, 58% had a lifetime history of PTSD due to combat or other traumatic exposure, and 38% had current PTSD. High rates of PTSD have also been documented among women with substance-abuse problems (Fullilove et al., 1993; Brown, Recupero, & Stout, 1995; Najavits et al., 1998; Dansky, Saladin, Brady, Kilpatrick, & Resnick, 1995). Conversely, rates of substance abuse in samples of women presenting with PTSD are also high (Breslau, Davis, Andreski, & Peterson, 1991). Generally, research indicates a strong relationship between PTSD and substance abuse among both males and females. For example, in a community sample, Kessler, Sonnega, Bromet, Hughes, and Nelson (1995) found that 52% of male subjects with PTSD were also diagnosed with alcohol abuse or dependence, compared to 34% of those without PTSD. Thirty-five percent of men with PTSD met criteria for drug abuse and dependence

compared to 15% of men without PTSD. For women, 28% of subjects diagnosed with PTSD also reported alcohol abuse or dependence compared to 14% of women without PTSD. Twenty-seven percent of women with PTSD met criteria for drug abuse or dependence diagnoses compared with 8% of women without PTSD.

Finally, several studies have compared the *relative* impact of trauma exposure and PTSD on substance use and abuse among male veterans (Streimer, Cosstick, & Tennant, 1985; Boman, 1986; Solomon, 1993; McFall, Mackay, & Donovan, 1992; Triffleman et al., 1995). Overall, these studies have suggested that PTSD is a stronger predictor of substance abuse than trauma exposure. For example, Solomon (1993) investigated the effects of combat exposure and PTSD on self-reported changes in alcohol and drug consumption among Israeli veterans. Veterans who developed PTSD were more likely to report increasing their alcohol and cigarette consumption as well as initiating new medication use, compared to combat participants with no diagnosed PTSD and noncombat controls; combat exposure had no significant impact on substance-use patterns.

THEORETICAL MODELS FOR UNDERSTANDING THE PTSD–SUBSTANCE ABUSE RELATIONSHIP

The relationship between trauma exposure, PTSD symptomatology, and substance abuse is complex. In order to develop a framework for guiding clinical practice, we briefly outline aspects of a cognitive-behavioral model for conceptualizing the frequently observed links between these psychological phenomena.

Operant Learning Theory, Escape/Avoidance, and Self-Medication

Consistent with behavioral models of substance abuse, alcohol and drug use are seen as operant behaviors, established and maintained by the pharmacological, cognitive–emotional, social, and environmental consequences contingent upon them. Especially important is the process in which substance use is negatively reinforced when it is followed by escape from aversive stimuli (Wulfert, Greenway, & Dougher, 1996). Clinicians often assume that trauma survivors drink or use drugs in order to reduce distressing PTSD symptoms, an idea that is consistent with the proposition that substance abuse among trauma survivors may represent attempts at avoidance of abuse-specific memories and affective responses characteristic of PTSD (e.g., Briere, 1992; Follette, 1994; Polusny & Follette, 1995; Root, 1989). Polusny and Follette (1995) conceptualized substance abuse among CSA survivors as a form of emotional avoidance that has been defined as "the unwillingness to experience unpleasant internal events, such as, thoughts, memories, and affective states associated with an abuse history, and

subsequent attempts to reduce, numb, or alleviate these negatively self-evaluated internal experiences" (p. 158).

In addition to reducing negative stimuli, alcohol and drug use by trauma survivors may be maintained, in part, by positive consequences of consumption; that is, substance use may temporarily strengthen sense of control, increase social confidence, provide access to social contacts, and, especially, enhance positive affect or other desired forms of emotional experience. For example, Briere (1992) suggested that the acute effects of drugs and alcohol may provide individuals with an opportunity to express painful emotions such as sadness and rage. McFall et al. (1992) similarly noted that "PTSD patients with pronounced avoidance/numbing symptoms may rely more on drug abuse to induce sensations that are otherwise blunted" (p. 361).

The self-medication hypothesis outlined here is consistent with more general explanations of substance abuse, which hypothesize that alcohol and other drugs are consumed in order to reduce tension (Cappell & Greeley, 1987) or anxiety (Wilson, 1988). Although an extensive body of research investigating these more general hypotheses has produced inconclusive findings, there is a dearth of empirical data bearing directly on the functions of alcohol and drug ingestion in relation to PTSD symptomatology. Few studies have attempted to test aspects of the self-medication hypothesis among individuals diagnosed with PTSD (Saladin, Brady, Dansky, & Kilpatrick, 1995; Bremner, Southwick, Darnell, & Charney, 1996).

Classical Conditioning, Trauma Cues, and Substance Abuse

According to classical conditioning theories of relapse (e.g., Rohsenow, Childress, Monti, Niaura, & Abrams, 1990), stimuli that reliably precede administration of alcohol or drugs may come to elicit a variety of possible substance-related conditioned responses: alcohol and drug urges or "cravings," other physiological changes such as increased salivation and heart rate, thoughts about alcohol and drugs, negative affective states, or withdrawal symptoms. Stimuli that may elicit these involuntary or "automatic" responses include places, people, times of day, drug paraphernalia, sights and smells associated with alcohol or drugs, and negative emotions. Exposure to these learned "triggers" and the conditioned emotional and physical responses elicited by them increases the likelihood of alcohol or other drug consumption. Because substance-abusing individuals with PTSD often drink or use in the presence of traumatic reminders, memories, or PTSD symptoms, these trauma-related stimuli may also come to elicit urges to drink or use substances.

Recently, researchers have begun to investigate reactivity to various types of classically conditioned cues among individuals with PTSD and substance-use disorders (Peirce et al., 1996; Meisler & Cooney, 1996). For example, Peirce et al. (1996) studied a sample of women in methadone maintenance treatment. Subjec-

tive reactivity to drug, neutral, and sexual assault cues was compared in subjects with and without sexual assault-related PTSD. Women with PTSD reported increased negative emotion, reduced positive emotion, and greater symptoms of opiate withdrawal following exposure to both sexual assault and drug cues. Women without PTSD did not show emotional reactivity to either type of cue. These findings suggest that hyperresponsivity to emotionally significant stimuli may increase risk for relapse.

Strengthened Reinforcer Value of Substance Abuse among Trauma Survivors

Increased levels of subjective distress, greater intensity of response to common alcohol and drug cues, and fears about emotional experiencing may operate to raise the "reinforcer value" of substances that are expected to produce anxiolytic effects. Learning theory suggests that, like deprivation, satiation, and other physiological processes, aversive stimuli can be seen as "establishing operations" that influence how effectively other stimuli (e.g., alcohol and drugs) may operate as reinforcers (Wulfert et al., 1996; Michael, 1994).

There is a growing body of research that suggests that substance abusers with trauma histories or PTSD experience higher levels of subjective distress and other problems than substance abusers without PTSD (e.g., Schaefer, Sobieraj, & Hollyfield, 1988; Rounsaville, Weissman, Wilber, & Kleber, 1982; Van Kampen, Watson, Tilleskjor, Kucala, & Vassar, 1986; Villagomez, Meyer, Lin, & Brown, 1995). For instance, compared with women who abuse substances but do not meet diagnostic criteria for PTSD, female PTSD substance abusers report greater psychopathology, substance-abuse problems, dissociation, and behaviors associated with borderline personality disorder (Brady, Killeen, Saladin, Dansky, & Becker, 1994; Najavits, Weiss, & Liese, 1996; Ouimette, Wolfe, & Chrestman, 1996; Saladin et al., 1995). Trauma exposure, and PTSD in particular, may exacerbate negative emotional responses to many ostensibly non-trauma-related relapse precipitants described in the general alcohol and drug literature, such as interpersonal conflict, physical pain, sexual and emotional intimacy, failure experiences, and so on. Because many of these precipitants may also function as trauma reminders, they may activate intense emotional responses. Such responses may be very difficult to manage with current coping repertoires, and, consequently, the subjective potency of alcohol or other substances as coping tools may be strengthened.

Many clinicians and researchers have noted that trauma survivors appear to have great difficulty in tolerating strong emotions. Ansorge, Litz, and Orsillo (1996) hypothesized that individuals with PTSD have dysfunctional attitudes about emotion (e.g., "feelings like grief and fear are unacceptable and uncontrollable") which impede constructive efforts at "mood repair" and interfere with emotion processing. Similarly, some research has suggested that individuals with

PTSD may experience heightened anxiety sensitivity (Taylor, Koch, & McNally, 1992), which has been defined as fear of the consequences of anxiety symptoms. Research has recently linked anxiety sensitivity to higher levels of alcohol consumption (Stewart, Peterson, & Pihl, 1995) and greater use of alcohol to cope (Stewart & Zeitlin, 1995).

Environmental Changes and Impairment of Effective Coping

The development of PTSD and substance-abuse problems often brings in their wake a series of environmental changes that make the tasks of coping and behavior change increasingly difficult. Both problems are often associated with conflict with significant others, difficulties in maintaining job performance, impairment of concentration and short-term memory, diminished social support, and health problems. These stressors introduce additional challenges for coping repertoires already taxed by trauma symptoms, and create more aversive situations that may prompt efforts at chemical escape.

Problems associated with PTSD, including difficulties in self-monitoring and labeling of emotions ("alexithymia," e.g., Hyer, Woods, Summers, Boudewyns, & Harrison, 1990), heightened sense of guilt and shame (Kubany, Chapter 6, this volume), deficits in interpersonal trust (Serafin & Follette, Chapter 13, this volume), and excessive use of avoidance coping (Roth & Newman, 1991) may interfere with efforts at adaptive coping.

CLINICAL GUIDELINES FOR THE ASSESSMENT AND TREATMENT OF THE SUBSTANCE-ABUSING TRAUMA SURVIVOR

General Considerations in Treating Addictions in the Presence of PTSD

Regardless of theoretical orientation, there are several practical concerns relevant to the treatment of concurrent PTSD and substance abuse. First, a stable period of abstinence from abused substances should precede trauma-specific interventions. Daniels and Scurfield (1992) argued that urine drug screens and breathalyzer tests should be routinely implemented at time of initiation of PTSD treatment, and that when a client cannot pass the screen, referral for substance-abuse treatment should be made prior to initiation of PTSD treatment. On the other hand, noting the difficulty in engaging patients with both PTSD and substance abuse in treatment, Reilly, Clark, Shopshire, Lewis, and Sorensen (1994) encouraged but did not require abstinence in a first treatment phase designed to engage and further assess dually diagnosed combat veterans. These practices are not necessarily incompatible. A practitioner or program may require

that abstinence be demonstrated prior to systematic exploration of trauma-related issues, while continuing to work with a using or drinking client in order to increase motivation to abstain and engage him or her in treatment.

Second, severity of alcohol and/or drug abuse in the dually diagnosed patient has direct bearing on selection of treatment. The "career" substance abuser who has engaged in a drug-taking lifestyle for many years will require more intensive treatment than an individual with a less chronic problem. In cases where drug and alcohol problems have been chronic or severe, or caused multiple significant life problems, it may be advisable for many practitioners to refer the client for adjunctive, specialized substance-abuse treatment. In this way, he or she can encourage delivery of appropriately intensive care for substance abuse while continuing to address issues related to traumatization. Comprehensive interventions with long-term abusers appear to have promise and include residential treatment communities and community reinforcement approaches (Azrin, 1976; Smith & Meyers, 1995). For some clients in crisis, inpatient settings may facilitate the sense of perceived safety important to PTSD treatment (Herman, 1992; Resick & Schnicke, 1992). Whatever the approach, a clinician can take steps to supplement substance-abuse treatment by supporting participation in the substance-abuse program and dealing with trauma-related needs. Because most substance-abuse treatment programs provide little or no help for PTSD, this dual-treatment model may be helpful for the client. The main point here is not the necessity of referral, but rather the need to systematically address substance abuse in its own right. As Miller and Brown (1997) argued, "Assuming that psychologists have the requisite knowledge and therapeutic skills (e.g., empathy, training in cognitive-behavioral approaches), clients with substance abuse may have at least as good a chance for recovery when receiving integrated psychological treatment as when referred to specialist programs" (p. 1272).

A third general treatment consideration relates to the importance of acknowledging and addressing the multiple environmental influences on substance use. As Baer, Wolf, and Risley (1987) noted, the label "substance abuse" represents "complex classes of topographies serving complex functions involving many agents of reinforcement/punishment and stimulus control, all of whom interact to constitute and maintain the system as such" (p. 323). Interactions between posttrauma problems and substance use are similarly complex and multidetermined. The implication is that substance abuse is unlikely to yield to treatments that focus on one or two aspects of the problem and ignore the variety of behavioral influences and environmental contexts in which the traumatized person is embedded. Models of multisystemic therapy (Henggeler, Schoenwald, & Pickrel, 1995) have recently been developed that acknowledge this variety, and simultaneously (or in succession) target key behaviors and processes in several of the multiple systems in which clients participate: family, peer groups, school, workplace, neighborhood/community, and treatment environments. This multisystem-oriented thinking is consistent with the approach to functional analysis

described in this chapter, in that it generally points to multiple influences on target behaviors that should be addressed in treatment if efforts at behavior change are to succeed.

Gender Issues Related to Trauma and Substance Abuse

A number of gender issues also have important implications for the assessment and treatment of individuals with concurrent PTSD and substance abuse. There is some evidence suggesting that the link between PTSD and substance abuse may be stronger among women than men (Gil-Rivas, Fiorentine, & Anglin, 1996; Najavits et al., 1997), a finding that may be influenced by the facts that women are more likely than men to experience sexual victimization (e.g., Finkelhor, 1994) and that women participating in outpatient drug abuse treatment are significantly more likely than male participants to report a history of sexual and physical abuse (Gil-Rivas, Fiorentine, & Anglin, 1996; Gil-Rivas, Fiorentine, Anglin, & Taylor, 1997). A number of researchers have found that women diagnosed with PTSD and substance abuse are more likely than women with PTSD only (Ouimette et al., 1996; Saladin et al., 1995) and women with substance abuse only (Brady et al., 1994; Brown, Stout, & Mueller, 1996) to report a history of sexual victimization.

It is important for clinicians to recognize that women with a history of CSA as well as women with substance-abuse problems are at risk for being victimized through adult sexual assault and physical partner violence (e.g., Kantor & Straus, 1989; Miller, 1990; Polusny & Follette, 1995; Wyatt, Guthrie, & Notgrass, 1992). Koss, Dinero, Seibel, and Cox (1988) found that more than 40% of sexual assault victims reported using alcohol prior to their assault. Higher rates of adult sexual victimization in alcohol-abusing women are consistent with findings from the social psychology literature suggesting that intoxicated women are viewed by others as more sexually available and more likely to engage in sexual activities (George, Gournie, & McAfee, 1988; Norris & Cubbins, 1992).

Treatment of concurrent PTSD and substance abuse may be further complicated by the presence of an Axis II disorder. While antisocial personality disorder is particularly prevalent among male veterans with substance-abuse problems and histories of childhood trauma (e.g., Krinsley, Young, Weathers, Brief, & Kelley, 1992), borderline personality disorder (BPD) has been associated with both substance abuse (Linehan & Dimeff, 1997) and childhood trauma among women (Linehan, 1993a; Polusny & Follette, 1995). Ouimette et al. (1996) found that women with concurrent PTSD and alcohol abuse reported more borderline personality traits compared to women with PTSD only and women with neither diagnosis. Linehan (1993a, 1993b) has developed an empirically validated, comprehensive behavioral treatment—dialectical behavior therapy (DBT)—for women who meet diagnostic criteria for BPD. Several authors have recently reported on the use of DBT in PTSD treatment programs (Errebo, 1996), and Linehan (1993c) reported that DBT may be an effective treatment for substance

abusers who also meet criteria for BPD given the high rates of comorbidity for these two disorders. Preliminary findings on the efficacy of DBT with BPD substance abusers appear promising (Linehan, Schmidt, & Dimeff, 1996; see Wagner and Linehan, Chapter 8, this volume, for a discussion of the treatment of dissociative behaviors).

Importance of Systematic Screening

Data on the comorbidity of PTSD and substance-abuse disorders suggest both that the substance-use patterns of clients with trauma histories should be routinely assessed and that substance abusers should be routinely screened for trauma exposure and PTSD (e.g., Bollerud, 1990; Brown et al., 1995). Evidence suggests that PTSD is frequently underdiagnosed among individuals receiving treatment for substance abuse (Dansky, Roitzsch, Brady, & Saladin, 1997), and routine inquiry about traumatic experiences greatly increases the probability that they will be identified (e.g., Rohsenow, Corbett, & Devine, 1988). Clinicians should note that substance abuse may mask or suppress PTSD symptoms, causing some individuals to apparently fail to meet criteria for PTSD diagnosis (Hyer, McCranie, & Peralme, 1993).

Overview of Treatment "Tasks"

It may be helpful for the therapist to conceptualize treatment in terms of a number of basic tasks that include (1) performing an ongoing functional assessment; (2) developing a therapeutic relationship; (3) building motivation for various aspects of participation in treatment and agreeing treatment goals; (4) minimizing exposure to alcohol, drugs, and related cues; (5) modifying the social environment to support treatment goals; and (6) implementing relapse prevention methods and teaching skills for coping with risk situations.

Clinical Guidelines for Functional Assessment

One of the basic tenets of behavior therapy is the importance of conducting an idiographic assessment of the client's problem behaviors. Two primary goals of assessment are to identify targets for behavioral change and to understand the utility, functions, and contexts of behavior problems, that is, to perform a "functional analysis" of the target behaviors (Kanfer & Saslow, 1969). Haynes and O'Brien (1990) defined functional analysis as "the identification of important, controllable, causal functional relationships applicable to a set of target behaviors for an individual client" (p. 654). Behavioral therapists are most interested in identifying those controlling variables whose manipulation will result in clinically significant changes in target behaviors for an individual client (Haynes & O'Brien, 1990).

Classical functional analysis as described by Hayes and his colleagues (Hayes & Follette, 1992; Hayes, Follette, & Follette, 1995) consists of six steps, illustrated in Table 9.1, using the case of Debra:

> Debra, a 21-year-old, single, female undergraduate student presented in outpatient psychotherapy with symptoms of PTSD and dysthymia. Four months prior to entering therapy, Debra was sexually assaulted by a male acquaintance she had met at a party. After the assault, she was overwhelmed by feelings of guilt and shame. She blamed herself for the rape and believed that she could have prevented it from occurring. She experienced frequent distressing intrusive thoughts and nightmares about the assault, felt tense and anxious most of the time, and had difficulty sleeping. She became increasingly withdrawn and avoided social gatherings, because they reminded her of the event. After experiencing a flashback during a lecture, she stopped attending classes and became concerned about failing her classes.
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> Debra's father was an alcoholic who began sexually molesting her at age 7. The sexual abuse continued until she was 13 years old, when she became fearful of becoming pregnant and told him to stop. Although there was no further sexual contact after this point, he continued to make inappropriate comments about her developing body.
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> When Debra entered high school, she started socializing with a group of slightly older, troubled youths who often drank and experimented with other drugs. She started drinking and became sexually promiscuous. On the evening of her recent sexual assault, she became severely intoxicated and agreed to go to the home of a male acquaintance for coffee. She was unable to resist his pressure for sex and was forced by him to engage in sexual intercourse. After the sexual assault, she began reexperiencing flashbacks of being molested by her father as well as of the recent assault. Her drinking increased and she became increasingly depressed and withdrawn. She entered therapy after one of her instructors spoke with her about her declining academic performance and absenteeism.

In order to generate hypotheses about the controlling variables involved in Debra's presenting complaints, the therapist identified when and under what circumstances she engaged in sexual behavior, drank excessively, and experienced intrusive thoughts and symptoms of depression. The functional analysis also identified what happened *after* Debra engaged in these behaviors (e.g., alcohol intoxication reduced her intrusive thoughts).

Assessment of substance-abuse problems requires data on the quantity and frequency of the client's consumption, the extent of alcohol- and drug-related problems, and the severity of dependence. In order to conduct a broad assessment of substance-abuse issues and facilitate treatment planning, Miller, Westerberg, and Waldron (1995) recommended a number of comprehensive instruments and interviews. The Addiction Severity Index (McLellan et al., 1985), Alcohol Use Inventory (Horn, Wanberg, & Foster, 1987), and Comprehensive Drinker Profile

TABLE 9.1. Steps of a Classical Functional Analysis

Step	Clinical case example
1. Identify potentially relevant characteristics of the client, his or her behavior, and its contexts via broad assessment.	A clinical interview was conducted to gather information about Debra's current sexual assault, previous victimization experiences, current and past psychological functioning, patterns of substance use, interpersonal relationships, and academic performance.
2. Organize the information collected in step 1 into a preliminary analysis of the client's difficulties in terms of behavioral principles so as to identify important causal relationships that might be changed.	Data collected during the clinical interview with Debra suggested the following preliminary functional analysis: During childhood and adolescence, Debra developed emotional avoidance coping strategies (reading, studying, drinking) that served to reduce or eliminate her negative abuse-related private experiences. These negative thoughts and feelings were generalized to social situations and sexual activity in general. Consensual sexual activity in college elicited further abuse-related thoughts and feelings, and she subsequently used alcohol to numb her affective responses associated with sex. After experiencing the recent sexual assault, social situations became stimuli for assault-related intrusive thoughts and feelings. In order to reduce her intrusive symptoms, Debra began avoiding social situations and continued drinking. However, these behaviors resulted in greater symptoms of depression and decreased the likelihood of Debra attending her academic classes.
3. Gather additional information based on step 2, and finalize the conceptual analysis.	A number of assessment techniques were used in this step, including written self-report instruments (e.g., Impact of Events Scale, Beck Depression Inventory) and self-monitoring methods (e.g., mood and thought diaries, daily monitoring of the antecedents and consequences of specific drinking situations). Through daily self-monitoring, Debra identified a functional relationship between her PTSD symptoms, social anxiety, and excessive drinking.
4. Devise an intervention based on step 3.	An individualized cognitive-behavioral intervention was designed to enhance Debra's skills for coping with abuse-related private experiences and social anxiety. An acceptance-based behavioral intervention aimed at increasing her willingness to experience negative affect and thoughts was employed.
5. Implement treatment and assess change.	Ongoing assessment of Debra's progress was conducted.
6. If the outcome is unacceptable, recycle back to step 2 or 3.	

(Miller & Marlatt, 1984) are examples of such measures. The Inventory of Drinking Situations (Annis, Graham, & Davis, 1987) and Situational Confidence Questionnaire (Annis, 1987) may be useful in identifying targets for relapse prevention and can be modified to apply to substances other than alcohol. We advise readers unfamiliar with the alcohol assessment and treatment literature to consult Hester and Miller's (1995) *Handbook on Alcoholism Treatment Approaches.*

Using the Assessment Process to Guide Treatment

A basic principle of behavior therapy is the direct link between assessment and treatment. As treatment progresses, new information comes to light that suggests additional targets for intervention, new variables of importance for change, and new interventions. This is especially likely when the client is given homework assignments to record urges to drink or use, PTSD symptoms, or ongoing problematic situations (e.g., marital conflict, social pressure to drink or use drugs, or work stress). When clients self-monitor situations hypothesized to influence initiation of substance use, a clearer understanding of changes required for abstinence may result. As they attempt to comply with treatment recommendations, obstacles to change are often identified. For example, when a client begins to attend Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) meetings, he or she may experience social anxiety, difficulties in making friends, problems with self-disclosure during meetings, and so on. These issues may need to be targeted in treatment in order to achieve larger strategies of change (e.g., support group affiliation and participation; see Satel, Becker, & Dan, 1993). Finally, ongoing assessment and outcome evaluation provide information regarding the effectiveness of therapeutic practices. Telephone follow-up and other forms of posttreatment information gathering provide clinicians and administrators with valuable information about the nature of treatment outcomes. Such information can be used to redesign interventions if needed. In the absence of such efforts, ineffective therapeutic practices may be perpetuated or effective ones discontinued.

Developing a Therapeutic Relationship

Evidence suggests that PTSD is often associated with interpersonal problems related to trust, anger, conflict with authority, and interpersonal fears. Because treatment is conducted in social contexts, these problems may disrupt aspects of treatment participation, including establishment of a therapeutic relationship (Zaslav, 1994) and effective utilization of group support. The confrontational style of some substance-abuse treatment environments may increase the likelihood of interpersonal conflict. For example, Nace (1988) noted stylistic differences between the traditional confrontational approach taken in most alcohol- and drug-treatment settings (especially those based on a 12-step treatment philosophy) and

the careful attention to development of a therapeutic alliance among clinicians treating PTSD. Miller and Rollnick's (1991) approach to nonconfrontational motivation building in alcoholics may offer a useful alternative approach with substance abusers with PTSD; however, clinicians may need to prepare their traumatized clients to cope with standard practice in AA and NA.

Perceived interpersonal safety may be influenced by such factors as the gender mix of clients, the interviewing practices of clerical and clinical staff, and even the physical layout of the clinic. Kuhne, Nohner, and Baraga (1986) argued that opportunity for discussion of trauma-related issues should be provided separately from other therapeutic group activities, suggesting that substance-abuse treatment groups could be disrupted when individuals with PTSD attempt to discuss their traumatic experiences and PTSD symptoms. The same recommendation can be made in order to create a therapeutic environment that actively supports disclosure of traumatic experiences. Finally, Nace (1988) also suggested that because PTSD is often associated with intense feelings of guilt, shame, and mistrust, treatment should commence in an individual rather than a group setting, a recommendation that goes against the traditional substance-abuse and 12-step, group-centered treatment approach.

Therapeutic relationship issues were addressed during individual treatment of Raymond:

> Raymond was a 53-year-old African American veteran of the Korean War with 8 years of formal education. As soon as he turned 18, Raymond enlisted in the Army; within 2 years of joining, he was given orders to go to battle in Korea as an infantryman. He had direct contact with the enemy on numerous occasions and felt in danger for his life for weeks on end, but the most traumatic event in the field was witnessing hundreds of Koreans burn in the fires of Pusan. His unit was responsible for much of the bulldozing of the remains of that conflict. While serving in Korea, he learned to drink heavily to ease feelings of rage and helplessness.
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> Within the first few months of his return home, Raymond began to have frequent nightmares. One night he awoke from a nightmare to find himself choking his wife, who he believed was the enemy. He promptly moved out of the house for fear of hurting her again and became increasingly dependent upon alcohol to ease his anxiety, medicate his chronic foot pain, and simply fall asleep. In 1980, after numerous struggles to quit on his own, Raymond discovered Alcoholics Anonymous and was able to stay sober for almost 3 years. However, he suffered a dramatic and severe relapse after hearing of the death of his mother. His wife learned of services offered by the Veterans Administration, where he was formally diagnosed with post-traumatic stress disorder.
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> Early in therapy, a therapeutic relationship was begun through discussion of how overwhelming coming to the hospital can be. The therapist was able to ask if Raymond felt poorly understood, being a black man and dealing with doctors who were predominantly Caucasian or other races. These conversations were welcomed with surprise by Raymond and forged

a strong working alliance and solid foundation for further disclosures. In fact, Raymond admitted never attending formal medical checkups but only picking up his medications. More than 5 years earlier, he had an interaction with a physician who was curt with him; in an attempt to curb his building rage, he left in the middle of an examination. Since then, only in dire circumstances would he see a doctor face-to-face.

When this issue was tackled as part of treatment, assessment revealed boyhood exposure to at least one episode of racial victimization—the lynching of an uncle. The connections between problems in trusting others associated with past trauma, fear of authority, and current fears of working with health professionals were explicitly drawn for the patient. Small, manageable goals were set, which allowed him to be directly seen by at least three different specialists. Each successful contact with a doctor was framed as a success, a necessary precursor to the work to be done regarding his traumatic memories.

Building Motivation and Setting Goals

Early in treatment, it is important to assess and, if necessary, build motivation to change drinking or drug-use practices. Initial level of motivation may be relatively low because, often, persons seeking help for trauma-related problems are not also requesting help for substance abuse. In fact, many will see substance use as a helpful means of remedying their distress, sleep problems, and so on. To challenge this attitude, it is helpful for therapist and patient together to undertake a review of the benefits and drawbacks of alcohol/drug use. As the patient identifies drawbacks of drinking or using, the therapist can ask questions to help elaborate on these negative consequences. Similarly, he or she can help the patient consider the accuracy of expected benefits of use. During this review, the patient can be encouraged to compare the pros and cons that he or she has identified. Parts of this practice of reviewing the consequences of drinking or drug were applied during treatment with Raymond:

Raymond was praised for recognizing the gravity of his current difficulties and seeking help from the Veterans Administration. A rationale for treatment was presented to him that first emphasized the costs of not pursuing therapy. He readily provided an array of negative consequences of his continued problems with PTSD and drinking: His health would decline; his isolation would deepen; he could be a potential threat to others or himself. He also identified and appreciated manifold reasons for stopping drinking: fewer potential adverse reactions with medications he was taking; increased control over anger, rage, and depression; and room in his life for more constructive activities that he once enjoyed, such as listening to music and reading.

The review of benefits and drawbacks of substance use sets the stage for commitment by the patient to make changes, and the setting of specific goals makes this commitment more concrete. Therefore, an important early treatment

objective is to establish and agree upon alcohol- and drug-related goals. Goals related to all substances should be discussed, because it is not unusual for clients to endorse abstinence with regard to one substance or class of substances (e.g., "hard drugs") while intending to continue use of another (e.g., marijuana or alcohol).

Miller and Rollnick (1991) provide a very helpful extended discussion of motivation enhancement methods based on five broad principles: (1) Express empathy, (2) develop discrepancy, (3) avoid argumentation, (4) roll with resistance, and (5) support self-efficacy. For example, to develop discrepancy means to "create and amplify, in the client's mind, a discrepancy between present behavior and broader goals" (p. 56). These nonconfrontational methods are especially likely to be useful with persons with a history of traumatization, who, as noted earlier, are often slow to form strong therapeutic relationships. The methods are designed to minimize opportunity for client resistance and therapist–client conflict, and can be adapted to tackle various aspects of treatment-relevant motivation unrelated to alcohol or drug use. For example, motivation to make use of support groups may be low, due to mistrust of people, social anxiety, and low self-esteem; motivation to address traumatic memories and PTSD may be low among individuals involved in substance-abuse treatment.

Finally, motivation must also be maintained. Because withdrawal symptoms experienced during early abstinence may be associated with resurgence of traumatic memories, worsening PTSD symptoms, and, possibly, increased risk for suicidal thoughts or attempts (e.g., Daniels & Scurfield, 1992; Kosten & Krystal, 1988), the client should be supported closely through this period, prepared for possible short-term worsening of PTSD symptoms, and helped to develop strategies for managing symptoms and urges to drink or use.

Managing Exposure to Alcohol, Drugs, and Related Cues

Repeated exposure to substance-related cues places great demands on coping resources and may undermine achievement of sustained abstinence. Therefore, a general goal for most clients is to help them change their environment and lifestyle to minimize such exposure. Family and peers, occupation, recreation activities, and neighborhood are among the aspects of the environment that are especially likely to affect access to alcohol and drugs and urges to drink or use. They can sometimes be changed to reduce risk of relapse, a strategy that may be more useful than attempting to enhance coping in a very unfavorable environment.

It is important to remember that the process of exposure therapy or other trauma-focused therapeutic discussion itself provides multiple cues for drug and alcohol use. This is not necessarily problematic; in case studies, Black and Keane (1982) found a decrease in alcohol use following imaginal exposure to traumatic combat experiences in a World War II veteran with severe combat-related anxiety, and Keane and Kaloupek (1982) similarly observed reductions in alcohol use

in a Vietnam veteran with PTSD treated with exposure to trauma memories. However, the possible utility of exposure treatment must be balanced against the possibility of precipitation of relapse (Pitman et al., 1991). As a current rule of thumb, most clinicians advise that a stable period of abstinence be required as a prerequisite to exposure therapy in clients with alcohol or other drug problems. However, the need to promote stable substance-abuse recovery prior to direct treatment of trauma-related problems must also be weighed against the likelihood that untreated PTSD and other trauma-related psychopathology may precipitate relapse in the meantime. In practice, the decision about when and if to initiate exposure therapy with this population requires clinical judgment informed by a comprehensive assessment of the client and careful discussion with him or her.

When exposure therapy is delivered, it is important that it encompass direct attention to alcohol and drug issues. Specifically, the clinician and client should closely monitor substance-use urges, structure ongoing substance-specific care, and plan for urge management. When a client reports an urge to drink or use during or immediately following in-session exposure, he or she should be encouraged to, verbally (1) acknowledge the urge, (2) think through the negative consequences of use, (3) decide on immediate coping responses, and (4) remember and reaffirm commitment to abstinence. In this way, the client can learn and practice a new style of coping with urges elicited by trauma-related memories and symptoms.

Modifying the Social Environment

Important steps for sobriety include assessing and possibly modifying interactions with significant others, addressing recurrent patterns of interpersonal conflict with specific individuals, reducing contact with heavy drinkers and drug users, increasing contact with abstainers and other positive models, and increasing participation in and engagement with support groups. Support groups may be especially helpful to the trauma survivor who has become socially isolated. For example, Vietnam veterans with chronic combat-related PTSD can find at AA or NA meetings a pool of potential companions or friends who can enable them to begin to reconnect with people and develop a social life. We recommend that practitioners assess for, and address in treatment, negative attitudes toward such groups, significant levels of social anxiety, and deficits in social skills.

Of great importance are relationships with significant others. Some studies have found that married substance abusers have better treatment outcomes than unmarried clients (Kosten, Jalali, Steidl, & Kleber, 1987; Rounsaville, Tierney, & Crits-Christoph, 1982), and that clients whose spouses choose to be involved with treatment of cocaine dependence use cocaine less (Higgins, Budney, Bickel, & Badger, 1994). Cognitive-behavioral couple therapy has been demonstrated to improve outcomes for individuals receiving treatment for alcohol problems (McCrady, Stout, Noel, Abrams, & Nelson, 1991; O'Farrell, Cutter, Choquette,

Floyd, & Bayog, 1992) and for other substance abuse (Fals-Stewart, Birchler, & O'Farrell, 1996). Sisson and Azrin (1986) developed tactics for use with the spouses of uncooperative alcoholics, teaching them to stop "enabling" substance use—to change the consequences of use—by removing positive reinforcement when the husbands were drinking as well as ceasing to protect them from negative consequences (e.g., stopping calling the workplace with excuses for Monday morning absenteeism).

Implementing Relapse Prevention Methods/Training Skills for Risk Situations

Given the mixed findings generated by the few empirical studies bearing on the question, it is currently unclear whether individuals with alcohol or drug problems who also suffer from PTSD are at heightened risk for relapse into substance use (Brown et al., 1996; Gil-Rivas et al., 1996, 1997; Ouimette, Ahrens, Moos, & Finney, 1997). However, the relapse prevention methods that have emerged from cognitive-behavioral approaches to addictive behaviors (Marlatt & Gordon, 1985; DeJong, 1994) may be usefully applied with this population.

Systematic study has enabled the identification of relapse antecedents or "triggers" that are commonly associated with return to substance use following periods of abstinence. Prevention of relapse is predicated on the notion that clients can be helped to identify their personal triggers and avoid them or learn to cope more effectively in their presence. Prominent among precipitating factors are negative emotions, which are thought to motivate escape in the form of drug use or alcohol consumption. Such emotion triggers are apt to be especially important among those with PTSD, for whom distress and emotions of fear, anger, and depression occur frequently and with intensity. Coping with such emotions may be especially difficult and require careful therapeutic attention. Moreover, in addition to the range of relapse precipitants commonly experienced by those recovering from substance abuse, persons with PTSD may also face problems related to the occurrence of PTSD symptoms themselves, because, as noted earlier, it is likely that much drug and alcohol use by these individuals occurs as an attempt at self-medication. The implication is that clinicians must assess the degree to which PTSD symptoms are associated with substance use, and, especially, for which particular symptoms this association holds. If a client can manage symptoms using other means—relaxation, positive forms of distraction, social support—then use of substances may decrease.

Cognitive-behavioral therapists devote considerable time to the training and practicing of new repertoires or skills for responding to risky situations and triggers, especially PTSD symptoms themselves. Fortunately, there is now a considerable literature available that focuses on skill-training technologies. For example, Monti, Abrams, Kadden, and Cooney (1989) published a manual describing procedures for group treatment of alcohol dependence. These authors identified a range of important interpersonal (e.g., starting conversations, giving criticism,

receiving criticism, drink refusal, enhancing social support networks) and intrapersonal (e.g., managing thoughts about alcohol, problem solving, increasing pleasant activities, relaxation, anger management, and management of negative thinking) coping skills. Because learning coping skills requires time and motivation, it is not feasible to teach unlimited numbers of them. Therefore, client and clinician, informed by the results of an ongoing functional analysis, must work together to identify major impediments to sobriety and select skills necessary to replace alcohol or drug consumption. This matching of person, problem situations, and coping skills is part of the art of skills training.

It is important that efforts at training coping skills go beyond didactic instruction and discussion. This can be accomplished through in-session role-play exercises, therapist modeling, in-session assignments (e.g., telephoning a significant other to communicate positive feelings, calling a sponsor to ask for help, calling about a job opening), and real-world practice tasks. Between-session practice should usually be accompanied by a brief written record of the efforts, to be used to guide discussion at the following session. Most importantly, practice of crucial skills must be continued until the client has used them many times in a variety of situations, in order to increase the likelihood of continued use following termination of treatment.

Many high-risk situations also arise within the therapy session itself, during discussion of treatment issues or via the therapist–client relationship. Commonly, such situations include interpersonal conflict, interpersonal closeness, and fear or anger. They offer an opportunity for the treatment provider to observe client responses, to provide direct instruction and modeling of new skills (e.g., assertion, problem solving, time-out or cool down periods, positive self-talk, active listening, self-disclosure, relaxation, appropriate verbal expression of feelings) and to model appropriate coping. Real-world change often begins in the therapist's office.

Existing Cognitive-Behavioral Treatment Packages and Outcome Research

Abueg and Fairbank (1992) were the first to elaborate upon the Marlatt relapse prevention model (see Marlatt & Gordon, 1985) for application to the modification of substance abuse among those with concurrent PTSD and substance abuse. Parallel to their conceptual discussion has been the development of program descriptions and formal treatment manuals for trauma-relevant relapse prevention training (TRRPT; Abueg & Kriegler, 1990; Abueg et al., 1994; Seidel, Gusman, & Abueg, 1994). TRRPT includes a number of features designed to respond to the uniqueness of PTSD-related stressors. First and foremost, psychoeducation focuses on the interaction of anxiety related to trauma, symptoms of intrusion and avoidance, and the various phases of addiction from first exposure to regular use or abuse. Second, identification of idiosyncratic high-risk stressors—PTSD

symptoms and themes—becomes grist for the mill in developing a thorough functional analysis related to alcohol cravings or urges. Third, the abstinence violation effect (AVE) is of special relevance for trauma victims, especially survivors of war, and receives greater emphasis. The AVE refers to the dissonance often generated in a recovering alcoholic when he or she takes a drink, a behavior incompatible with the goal of remaining "clean and sober." The guilt and negative self-labeling that arise in a chronic sufferer of PTSD are often intense and pervasive (e.g., the military combatant has learned that "mistakes are lethal"). Skills in dealing with failure experiences, such as that potentially correctable lapse, are central to the TRRPT model. Finally, skills-building with respect to averting or managing high-risk emotional states such as anger and rage, guilt, depression, and dissociation is critical to maintaining effects of these interventions.

Preliminary results using this integrative model are promising. In one inpatient study of veterans with chronic, combat-related PTSD, the experimental group receiving this treatment showed significantly higher rates of abstinence at 6-month follow-up than a usual-treatment control (Abueg & Fairbank, 1992; Abueg, Falcone, Dondershine, & Gusman, 1990). Although relapse rates tended to converge at 9-month and 1-year follow-ups, striking differences were observed at all follow-up periods among those who did drink: The subjects in the experimental condition drank significantly fewer drinks per day when compared to control subjects. Interim results of a more recent, randomized control trial with combat veteran outpatients (Abueg, Fairbank, Penk, & Gusman, 1995) not only replicated these improved relapse rates in the TRRPT group over usual treatment (and a process-group control) but also demonstrated improved PTSD outcomes as measured by hyperarousal and reexperiencing subscales of the Mississippi Scale for Combat-Related PTSD (Keane, Caddell, & Taylor, 1988).

Outcome research using a cognitive-behavioral approach to treat women with problems related to both PTSD and substance dependence has also begun to emerge. A treatment package developed by Najavits and her colleagues (see Najavits et al., 1996) is designed for clients exposed to childhood trauma or severe, violent, or repetitive abuse. Groups meet twice per week for 3 months. Abstinence is specified as the substance-related goal. Unlike the approach used with combat veterans, Najavits and her colleagues do not promote exploration of trauma histories via narrative accounts or exposure treatment; rather, they describe their method as an "early treatment" or "first stage" present-centered therapy for substance use and PTSD, which is organized around issues of safety and self-care. This seems especially appropriate given the recency of active substance abuse among their sample (to follow).

Following an individual, pregroup interview and an individual HIV counseling session, women participate in two introductory sessions focusing on psychoeducation and identification and usage of community treatment resources; seven "action skills" sessions, covering emotional grounding, structure/activity scheduling, development of a self-care action plan, learning to ask for help,

identifying and fighting substance use and PTSD triggers, managing ambivalence, and review of active coping; six cognitive restructuring sessions, with an introduction to distortions that increase PTSD and substance-related symptoms, methods of "rethinking," getting out of "user thinking" and "victim thinking," practice in rethinking, advanced rethinking, and review; six sessions focusing on relationships, covering self-protection in relationships, practice in saying "no" to dangerous social situations, identification of negative communication patterns, rebuilding trust through effective communication, healthy relationship thinking, and review and role play of relationship skills; and three sessions of review and termination. The approach is noteworthy for its explicit attention to the design of an "accessible and engaging" therapy, and for its use of educational devices to encourage sustained learning in a population showing difficulties with concentration and memory (e.g., provision of written session summaries, testing for retention of knowledge).

Najavits, Weiss, Shaw, and Muenz (1998) provided this 24-session group treatment for 17 women meeting diagnostic criteria for both substance use and PTSD. All subjects reported active substance use within the last 30 days, and, in this study, all women reported five or more lifetime traumas, with initial trauma occurring early in childhood (mean age, 7 years); 94% reported sexual abuse, 88% physical abuse, and 71% criminal victimization. Results showed significant improvements in drug use (self-reported abstinence and drug-use severity) at posttreatment and 3-month follow-up. Alcohol use and PTSD symptoms improved by 3-month follow-up. Importantly, there was also a relatively low (33%) dropout rate and good rates of session attendance (67%) by individual members. These findings are encouraging, but the authors correctly note that current conclusions are speculative given small sample size and other methodological limitations (e.g., absence of a control group, short follow-up interval).

One important result of the increasing interest on the part of cognitive-behavioral psychologists in the connection between trauma and substance abuse is the development of manualized treatments, setting the occasion for both careful evaluation and dissemination to clinicians (Abueg et al., 1994; Najavits et al., 1996; Linehan & Dimeff, 1997).

FINAL COMMENTS

Substance abuse and posttraumatic problems are characterized by a variety of commonalities that lend themselves to a cognitive-behavioral treatment approach. As Meisler (in press) noted, PTSD and drug or alcohol problems are both associated with intrusive thoughts (about traumatic experiences and about alcohol and drugs), difficulties in management of physiological arousal, and an excessive use of avoidance coping strategies. These difficulties lend themselves to an array of well-developed cognitive-behavioral methods designed to accomplish

arousal reduction, attentional control, and active problem solving. Najavits et al. (1996) similarly observed that both disorders are often accompanied by overwhelming negative affect, impairment in functional behaviors related to relationship initiation and maintenance, and high relapse rates. Again, cognitive-behavioral treatments have a strong tradition of teaching self-management of negative emotions, social and communication skills, and relapse prevention tactics. Given the clear association between trauma exposure, PTSD, and substance abuse, it is necessary for clinicians specializing in working with either traumatized individuals or those with alcohol and drug problems to become skilled at treating (or, at least, identifying and making a referral related to) the other accompanying disorder. This chapter has provided some guidelines for application of a cognitive-behavioral model to treatment of co-occurring substance use and PTSD, and outlined some of the major clinical considerations in the delivery of services to this important client population.

SUMMARY OF TREATMENT RECOMMENDATIONS

- Routinely assess substance-use patterns of clients with trauma histories.
- Routinely screen substance abusers for trauma exposure and PTSD.
- Design treatment interventions to address multiple social systems in which the problem behaviors are embedded: family, peer groups, work or school environments, and neighborhood/community context.
- A stable period of abstinence from abused substances should predate trauma-specific interventions.
- In cases where drug and alcohol problems have been chronic or severe, implement close substance-abuse monitoring during treatment.
- In cases where drug and alcohol problems have been chronic or severe, refer the client for specialized substance-abuse treatment.
- If assessment indicates that motivation to change is low, take concrete steps to strengthen motivation; use nonconfrontational, motivation-building approaches.
- Agree on specific treatment goals with regard to all substances.
- Identify motivational conditions, antecedents ("triggers"), and consequences associated with substance use and other target behaviors (functional analysis).
- Assign written self-monitoring of situations hypothesized to influence initiation of substance use.
- Change the physical and social environments to minimize access/exposure to alcohol/drugs and related cues, and increase exposure to "recovery cues."
- Involve significant others in the treatment process.
- Assess (intervene where indicated) for negative attitudes toward partici-

pation in support groups, as well as significant levels of social anxiety and deficits in social skills that may interfere with participation.

- Adapt trauma-related exposure therapy to include direct attention to alcohol and drug urges.
- Identify individual, high-risk situations and prepare the client to cope with them.
- Help clients learn and practice more effective ways of coping with PTSD symptoms.
- Supplement didactic instruction in coping skills with in-session role-play exercises, therapist modeling, in-session assignments, and assigned real-world practice.
- Use therapist–client relationship difficulties as opportunities to teach skills.
- Use telephone follow-up and other forms of posttreatment information gathering (e.g., questionnaires) to measure effectiveness of treatment.

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